APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/522,319	03/09/00	BALLANTYNE	A 50-00-002

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EXAMINER
KENDALL C

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 08/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)
*U.S. GPO: 2000-473-000/44602

1- File Copy

	Application No.	Applicant(s)
Office Action Summary	09/522,319	BALLANTYNE ET AL.
	Examiner	Art Unit
	Chuck O Kendall	2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _09 March 2000_ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

DETAILED ACTION

1. This action is in response to the application filed 03/09/00

Claims 1-15 have been examined and rejected

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-4,8-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Meltzer et

al hereinafter Meltzer.

Claim 1

Meltzer anticipates, a method for modeling a legacy computer system comprising:

identifying incidents of applications of the legacy computer system that output data; and

(Fig 2,Fig 4,Fig 8)

defining a control flow graph of the output incidents *(Fig 12,Fig 4,fig 14, and col.30*

line 7-10).

Claim 2

identifying the value or type of the data fields associated with each output incident; and *[fig 2,col.30 line 7-30]*.

attaching the value or type to the control flow graph.*[col.30 line 7-10, fig 7, fig 12, fig 14, see bid]*.

Claim 3

The method of Claim 2 wherein identifying the value or type further comprises:

identifying output incidents of invariant data fields; and *[col.5 line 5-12]*.

attaching the value of each invariant data field to its associated control flow graph incident.*[col.5 line 5-12 & Fig 12,Fig 4,fig 14, and col.30 line 7-10]*.

Claim 4

The method of Claim 2 wherein identifying the value or type further comprises:

identifying output incidents of variant data fields; and *[col.5 line 1-20 Fig 12,Fig 4,fig 14]*

attaching the type of each variant data field to its associated control flow graph incident. *col.5 line 1-20.*

Claim 8

The method of Claim 1 further comprising:

associating the incidents with an Extensible Markup Language schema; and *[col.82 line 63-67]*.

creating a specification to modify the legacy computer system applications to provide output in Extensible Markup Language format.*[col.32 line 3-10]*.

Claim 9

The method of Claim 8 further comprising:

automatically modifying the legacy computer system applications in accordance with the specification. *[col.82 line 63-67]*.

Claim 10

Meltzer anticipates , a system for modeling an output application of a legacy computer system comprising:

a modeling engine interfaced with the legacy computer system, the modeling engine operable to analyze an application loaded on the legacy computer system to identify incidents within the application that output data from the legacy computer system; and[*col.82 line 63-67,*].

a control flow graph of the output operations within the applications. (*Fig 2,Fig 4,Fig 8, col.30 line 7-30*)

Claim 11

The system of Claim 10 wherein the control flow graph comprises plural nodes, each node associated with an output incident. [*col.3 line 63-67*]

Claim 13

The system of claim 10 wherein the control flow graph of the output operations comprises as a formal grammar that describes the flow paths from each start command to the associated stop commands.[*col.31 line 26-35*].

Claim 14

The system of Claim 10 further comprising a graphical user interface in communication with the modeling engine, the graphical user interface operable to display the control flow graph formal grammar and the incidents. [*col.26 line 40-57& col.30 line 30-50*].

Claim 15

The system of Claim 14 wherein the graphical user interface further communicates with a mapping engine and an Extensible Markup Language schema, the mapping engine operable to map the incidents of the applications with the control flow graph formal grammar and the Extensible Markup Language schema. [*col. 31 line 26-35*].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
art are such that the subject matter as a whole would have been obvious at the time the invention was made
to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meltzer in view of

Gangopadyhay et al USPN 6,182,024 B1 hereinafter Gangopadyhay .

Per Claim 5

Meltzer discloses all the limitations per previously cited claims. Meltzer does not disclose

nodes having associated arcs. However, Gangopadyhay discloses this feature. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to

combine the teachings of Meltzer and Gangopadyhay because, use of arcs in legacy systems

promotes ease of modification.

Allowable Subject Matter

Claims 6,7, and 12 contain allowable subject matter vis-à-vis the prior art and is objected

to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims

The following features of these claims are not shown or suggested by the prior art of

record:

The method wherein a complete control flow graph of the application (N, A) is used to

compute a directed graph (NR, AR) wherein:

n comprises a node in NR if n, an element of N, starts an output process, stops an output

process or outputs data; and

<nl, nm> comprises an arc in AR if nl and n, m are in NR and a sequence of arcs <nl, n2>, <n2,

n3>, . . . , <nml, nm> is in A such that for i from 2 to m-1, ni is not in NR.

Correspondence Information

Any inquires concerning this communication or earlier communications from the examiner should be directed to *Chuck O. Kendall* who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Mark R. Powell,* may be reached at *(703) 305-9703.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is *(703) 305-3900.*

Chuck O. Kendall

Software Engineer Patent Examiner
United States Department of Commerce

Mark R. Powell

MARK R. POWELL
SUPERVISORY PATENT EXAMINER
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